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DEMONT & BREYER, LLC  
100 COMMONS WAY, Ste. 250  
HOLMDEL, NJ 07733

EXAMINER
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SHEDRICK, CHARLES TERRELL

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2617

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/668,634  
Filing Date: September 23, 2003  
Appellant(s): SPAIN, DAVID STEVENSON

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Jason Paul Demont  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 8/25/08 appealing from the Office action mailed 10/4/07.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

20040057507	Rotstein et al.	03-2004
6,658,258	Chen et al.	12-2003
6,249,252	Dupray, Dennis J.	06-2001
20030064733	Okanoue et al.	04-2003

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### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

#### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-4,6-7, 10-13, 15-16,20-23, and 25-26 rejected under 35 U.S.C. 103(a) as being unpatentable over Rotstein et al. US Patent Pub. No.: 2004/0057507, hereinafter, 'Rotstein' in view of Chen et al., hereinafter, 'Chen', US Patent No. 6,658,258 B1

Consider **claim 1**, Rotstein teaches a method of deducing a signal strength of a first signal at a wireless terminal based on the transmit strength of a second signal, that is transmitted by said wireless terminal (e.g., paragraphs 0017,0020 0029-0050, figure 4).

However, Rotstein does not specifically teach estimating the location of said wireless terminal based on a signal strength of a first signal.

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In analogous art, Chen teach estimating the location of said wireless terminal based on a signal strength of a first signal (abstract, col. 2 lines 14-25, col. 7 line 34-col. 8 line 35 and claims 1 and 12).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Rotstein to include estimating the location of said wireless terminal based on said signal strength of said first signal for the purpose of estimating the location of a mobile terminal using improved link estimations.

Consider **claim 2**, and **as applied to claim 1 above**, Rotstein as modified Chen teaches a method wherein deducing said signal strength of said first signal is also based on the transmitted strength of said first signal (e.g., paragraphs 0017,0020 0029-0050, figure 4).

Consider **claim 3**, and **as applied to claim 1 above**, Rotstein as modified Chen teaches a method wherein deducing said signal strength of said first signal is also based on a signal-strength measurement for said second signal at the location where said first signal is transmitted (e.g., paragraphs 0017,0020 0029-0050, figure 4).

Consider **claim 4**, and **as applied to claim 1 above**, Rotstein as modified by Chen teaches a method wherein deducing the said signal strength of said first signal, is also based on an attenuation for said second signal between wireless terminal and the location where said first signal is transmitted (abstract, col. 2 lines 14-25, col. 7 line 34-col. 8 line 35 and claims 1 and 12).

Consider **claim 6**, and **as applied to claim 1 above**, Rotstein teaches a method wherein estimating the link of said wireless terminal is also based on a signal strength measurement of a third signal (e.g., paragraphs 0017,0020 0029-0050, figure 4).

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However, Rotstein does not specifically teach estimating the location of said wireless terminal.

In analogous art, Chen teaches estimating the location of said wireless terminal (abstract, col. 2 lines 14-25, col. 7 line 34-col. 8 line 35 and claims 1 and 12).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Rotstein to include estimating the location of said wireless terminal for the purpose of estimating the location of a mobile terminal using improved link estimations.

Consider **claim 7**, and **as applied to claim 6 above**, Rotstein teaches a method wherein estimating the link of said wireless terminal is based on said signal strength of said first signal and said signal strength measurement of said third signal (e.g., paragraphs 0017,0020 0029-0050, figure 4).

However, Rotstein does not specifically teach estimating the location of said wireless terminal.

In analogous art, Chen teaches estimating the location of said wireless terminal (abstract, col. 2 lines 14-25, col. 7 line 34-col. 8 line 35 and claims 1 and 12).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Rotstein to include estimating the location of said wireless terminal for the purpose of estimating the location of a mobile terminal using improved link estimations.

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Consider **claim 10**, Rotstein teaches a method wherein deducing said signal strength of said first signal based on a signal-strength measurement of a second signal at the location where said first signal is transmitted (e.g., paragraphs 0017,0020 0029-0050, figure 4).

However, Rotstein does not specifically teach estimating the location of said wireless terminal based on a signal strength of a first signal.

In analogous art, Chen teach estimating the location of said wireless terminal based on a signal strength of a first signal (abstract, col. 2 lines 14-25, col. 7 line 34-col. 8 line 35 and claims 1 and 12).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Rotstein to include estimating the location of said wireless terminal based on said signal strength of said first signal for the purpose of estimating the location of a mobile terminal using improved link estimations.

Consider **claim 11**, and **as applied to claim 10 above**, Rotstein as modified by Chen teaches a method wherein deducing said signal strength of said first signal is also based on the transmitted strength (e.g., paragraphs 0017,0020 0029-0050, figure 4).

Consider **claim 12** and **as applied to claim 10 above**, Rotstein as modified by Chen teaches a method of deducing a signal strength of a first signal at a wireless terminal based on the transmit strength of a second signal (e.g., paragraphs 0017,0020 0029-0050, figure 4), that is transmitted by said wireless terminal (e.g., paragraphs 0017,0020 0029-0050, figure 4).

Consider **claim 13**, and **as applied to claim 10 above**, Rotstein as modified by Chen teaches a method wherein deducing the said signal strength of said first signal, is also based on an attenuation (e.g., paragraphs 0017,0020 0029-0050, figure 4)

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Consider **claim 15**, and **as applied to claim 10 above**, Rotstein teaches a method wherein estimating the link of said wireless terminal is also based on a signal strength measurement of a third signal (e.g., paragraphs 0017,0020 0029-0050, figure 4).

However, Rotstein does not specifically teach estimating the location of said wireless terminal.

In analogous art, Chen teaches estimating the location of said wireless terminal (abstract, col. 2 lines 14-25, col. 7 line 34-col. 8 line 35 and claims 1 and 12).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Rotstein to include estimating the location of said wireless terminal for the purpose of estimating the location of a mobile terminal using improved link estimations.

Consider **claim 16**, and **as applied to claim 15 above**, Rotstein teaches a method wherein estimating the link of said wireless terminal is based on said signal strength of said first signal and said signal strength measurement of said third signal (e.g., paragraphs 0017,0020 0029-0050, figure 4).

However, Rotstein does not specifically teach estimating the location of said wireless terminal.

In analogous art, Chen teaches estimating the location of said wireless terminal (abstract, col. 2 lines 14-25, col. 7 line 34-col. 8 line 35 and claims 1 and 12).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Rotstein to include estimating the location of said wireless



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terminal for the purpose of estimating the location of a mobile terminal using improved link estimations.

Consider **claim 20**, Rotstein teaches a method of deducing a signal strength of a first signal at a wireless terminal based on the attenuation of a second signal, that is transmitted by said wireless terminal (e.g., paragraphs 0017,0020 0029-0050, figure 4).

However, Rotstein does not specifically teach estimating the location of said wireless terminal based on a signal strength of a first signal.

In analogous art, Chen teach estimating the location of said wireless terminal based on a signal strength of a first signal (abstract, col. 2 lines 14-25, col. 7 line 34-col. 8 line 35 and claims 1 and 12).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Rotstein to include estimating the location of said wireless terminal based on said signal strength of said first signal for the purpose of estimating the location of a mobile terminal using improved link estimations.

Consider **claim 21**, and **as applied to claim 20 above**, Rotstein as modified by Chen teaches a method wherein deducing said signal strength of said first signal is also based on the transmitted strength of said first signal (e.g., paragraphs 0017,0020 0029-0050, figure 4).

Consider **claim 22**, and **as applied to claim 20 above**, Rotstein as modified by Chen teaches a method wherein deducing said signal strength of said first signal is also based on a signal-strength measurement for said second signal at the location where said first signal is transmitted (e.g., paragraphs 0017,0020 0029-0050, figure 4).

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Consider **claim 23 and as applied to claim 20 above**, Rotstein as modified by Chen teaches a method of deducing a signal strength of a first signal at a wireless terminal based on the transmit strength of a second signal, that is transmitted by said wireless terminal (e.g., paragraphs 0017,0020 0029-0050, figure 4).

Consider **claim 25**, and **as applied to claim 20 above**, Rotstein teaches a method wherein estimating the link of said wireless terminal is also based on a signal strength measurement of a third signal (e.g., paragraphs 0017,0020 0029-0050, figure 4).

However, Rotstein does not specifically teach estimating the location of said wireless terminal.

In analogous art, Chen teaches estimating the location of said wireless terminal (abstract, col. 2 lines 14-25, col. 7 line 34-col. 8 line 35 and claims 1 and 12).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Rotstein to include estimating the location of said wireless terminal for the purpose of estimating the location of a mobile terminal using improved link estimations.

Consider **claim 26**, and **as applied to claim 25 above**, Rotstein as modified by Chen teaches a method wherein estimating the location of said wireless terminal is based on said signal strength of said first signal and said signal strength measurement of said third signal (e.g., paragraphs 0017,0020 0029-0050, figure 4).

Claims **5,14,19 and 24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Rotstein et al. US Patent Pub. No.: 2004/0057507, hereinafter, 'Rotstein', in view of Dupray (U.S. Patent No. 6,249,252).

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Consider **claims 5, 14, and 24** and **as applied to claims 1,10 and 20 above**, Rotstein teaches the claimed invention except wherein estimating the location of said wireless terminal comprises pattern matching said signal strength of said first signal against a database that associates candidate locations for said wireless with predicted signal strength measurements for said first signal.

However, in analogous art, Dupray teaches wherein estimating the location of said wireless terminal **140** comprises pattern matching (**abstract**) said signal strength of said first signal against a database that associates candidate locations for said wireless with predicted signal strength measurements for said first signal (**abstract, column 5 lines 50 –65, and column 51 line 50 – column 52 line 21**).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Rotstein to include Dupray for the purpose of improving location determination.

Consider **claim 19**, and **as applied to claim 10 above**, Rotstein teaches the claimed invention except a method comprising removing the effects of fast fading.

However, in analogous art, Dupray teaches a method comprising removing the effects of fast fading (i.e., delay spread; random phase shift or Rayleigh Fading) (**column 2 line 56 – column 3 line 32 and column 26 lines 23-63**)

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Rotstein to include Dupray for the purpose of improving location determination.

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**Claims 8,17,and 27** are rejected under 35 U.S.C. 103(a) as being unpatentable over Rotstein et al. US Patent Pub. No.: 2004/0057507, hereinafter, 'Rotstein', in view of Chen et al., hereinafter, Chen US Patent No. 6,658,258 B1 in view of Okanoue et al. (U.S. Pub. No. US 2003/0064733 A1.

Consider **claims 8,17, and 27** and **as applied to claims 6,15, and 25**. Rotstein teaches a method wherein estimating the link of said wireless terminal is based on a first signal and also based on a signal strength measurement of a third signal (e.g., paragraphs 0017,0020 0029-0050, figure 4).

However, Rotstein does not specifically teach estimating the location of said wireless terminal.

In analogous art, Chen teaches estimating the location of said wireless terminal (abstract, col. 2 lines 14-25, col. 7 line 34-col. 8 line 35 and claims 1 and 12).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Rotstein to include estimating the location of said wireless terminal for the purpose of estimating the location of a mobile terminal using improved link estimations.

However, Rotstein as modified by Chen does not clearly disclose if indeed the location of said wireless terminal is based on the absolute magnitude of the difference between said signal strength of the first signal and said signal strength of the third signal.

In the same field of endeavor Okanoue et al. discloses a method of estimating the location of a mobile terminal 4 (figure 1) based on the absolute value of the difference between the

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reception level (i.e., signal strength) of multiple signals (**abstract, paragraph 0079, and figure 5**).

Therefore it would have been obvious to a person of ordinary skill in the art to calculate the absolute value of the difference between a first signal strength and a third signal strength as taught by Okanou et al. in the method of Rotstein as modified by Chen in order to improve the mathematical derivations of signal strength.

**Claims 9,18, and 28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Rotstein et al. US Patent Pub. No.: 2004/0057507, hereinafter, 'Rotstein', in view of Dupray (U.S. Patent No. 6,249,252) and further in view of Okanou et al. (U.S. Pub. No. US 2003/0064733 A1).

Consider **claims 9,18, and 28** and as applied to **claims 6,15, and 25**, Rotstein teaches the claimed invention except wherein estimating the location of said wireless terminal comprises generating a two-dimensional probability distribution for the location of said wireless terminal.

However, in analogous art, Dupray teaches a method wherein estimating the location of said wireless terminal **140** comprises generating a two-dimensional probability distribution for the location of said wireless terminal (i.e., incorporating location estimates based on a joint PDF)(**column 54 lines 18-37**). Rotstein further discloses a method wherein estimating the link of said wireless terminal is based on a first signal and also based on a signal strength measurement of a third.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Rotstein to include Dupray for the purpose of improving location determination.

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However, Rotstein as modified by Dupray does not teach if indeed the location of said wireless terminal is based on the generating a two-dimensional PDF for the location of said wireless terminal based on the absolute magnitude of the difference between said signal strength of the first signal and said signal strength of the third signal.

In the same field of endeavor Okanou et al. discloses a method of estimating the location of a mobile terminal 4 (figure 1) based on the absolute value of the difference between the reception level (i.e., signal strength) of multiple signals (**abstract, paragraph 0079, and figure 5**).

Therefore it would have been obvious to a person of ordinary skill in the art to generate a two -dimensional PDF as taught by Rotstein as modified Dupray based on the absolute value of the difference between a first signal strength and a third signal strength as taught by Okanou et al. to improve the mathematical derivations of signal strength.

#### **(10) Response to Argument**

##### **1. 35 U.S.C. 103 Rejection of Claims 1-4, 6-7, 10-13, 15-16, 20 -23, 25-26**

Claims 1-4, 6-7, 10-13, 15-16, 20 -23, 25-26 were rejected under 35 U.S.C. 103(a) being anticipated by as being obvious in light of R. Rotstein, et al., U.S. Patent Publication 2004/0057507 A1 (hereinafter "Rotstein") as modified by B.H. Chen et al., U.S. Patent 6,658,258 B1 (hereinafter "Chen").

Claim 1 recites:

1. A method comprising:

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*deducing a signal strength of a first signal,  $R_D$ , at a wireless terminal based on a transmit strength of a second signal,  $T_u$ , that is transmitted by said wireless terminal; and estimating the location of said wireless terminal based on said signal strength of said first signal,  $R_D$ .*  
*(emphasis supplied).*

2. Applicant argues that nowhere does Rotstein teach or suggest, alone or in combination with the other references, what claim 1 recites namely determining the signal strength of a first signal at wireless terminal based on the transmit strength of a second signal transmitted by the wireless terminal. In substantiating the rejection, the Office is employing a "kitchen sink" attack wherein a long reference that uses some of the same words and phrases as are in the claims is deemed to anticipate the limitations claims. The Office cites into portions of the reference that comprise almost 1000 words without ever mapping the limitations in them to the particular elements in the reference.
3. As a first matter, The Examiner is unable to find any such requirement in the MPEP which indicates the explicit requirement of "mapping" or places restrictions on the length of a reference. The office action aims to cite the most relevant portions of the reference in an effort to assist the Applicant in understanding the rejection
4. As a second matter, as noted above the claim recites *deducing a signal strength of a first signal,  $R_D$ , at a wireless terminal based on a transmit strength of a second signal,  $T_u$ , that is transmitted by said wireless terminal; and estimating the location of said wireless terminal based on said signal strength of said first signal,  $R_D$ .*

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5. Deduce is understood as reaching a conclusion by reasoning, to infer from a general principal. infer is to conclude from evidence. This type of reasoning is used in almost every step in a mathematical argument.

- a. For example to solve  $5x = 10$  for  $x$  we divide both sides by 5 to get

$$\frac{5x}{5} = \frac{10}{5} \text{ or } x=2. \text{ What we know or assume is that } 5x = 10 \text{ and that we can divide both}$$

sides of an equation by a non-zero number and the equation is still valid. From these two facts we can deduce the  $x=2$ . Now let's keep in mind the idea of the above example while reviewing teachings of the prior art against the claimed invention as illustrated below. Carefully consider that the same principle is involved in the claimed invention and the prior art as shown below via a side by side relationship.

**Claimed invention:**

Applicant indicates on Page 16 of the remarks that  $R_D$  can be deduced from the strength transmitted by base station,  $T_D$ , and the attenuation of that signal between the base station and wireless terminal,  $A_D$ , as noted in equation 1 illustrated Table 1.

$R_D$  = signal received by the mobile station.

$T_D$  = signal transmitted by the base station

$A_D$  = Attenuation or path loss

Equation 1 uses what we know  $T_D$  and  $A_D$  to find what we don't know  $R_D$ , where  $R_D$  = **signal received by the mobile station**



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**Prior art:**

The prior art in paragraph 0037 teaches that the received signal at the mobile station  $P_{RX}$  is a function of the transmit power  $P_{TX}$  from the AP 102 and the total path loss  $L_T$ . In other words the signal received by the mobile station can be deduced based on the power transmitted by the base station (e.g., AP) and the attenuation or Path loss  $L_T$ .

$$P_{RX} = P_{TX} \times L_T + I \text{ (see paragraph 0037)}$$

$P_{RX}$  = signal received by the mobile station (see paragraph 0039)

$P_{TX}$  = signal transmitted by the base station (see paragraph 0040)

$L_T$  = Attenuation or path loss (see paragraph 0045)

**Table 1**

Claimed invention	Prior Art
$R_D = T_D - A_D$ Equation 1	$P_{RX} = P_{TX} \times L_T + I$ Equation 1A

Table 1 illustrates the relationship between equation 1 as noted in the Applicant's specification and the prior art. Equation 1A uses what we know  $P_{TX}$  and  $L_T + I$  to find what we don't know  $P_{RX}$ , where  $P_{RX}$  = **signal received by the mobile station.**

Moving to equation 2 of the Applicant specification:

**Claimed invention:**

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Applicant notes that the principle of reciprocity (a well known principle) indicates that the attenuation of the signal between the base station and the wireless terminal,  $A_D$ , equals the attenuation of the signal between the wireless terminal and the base station,  $A_u$ .

**Prior Art:**

Paragraphs 0045 and 0054 indicates that,  $L_T$ , is the total path loss.

**Table 2:**

Claimed invention	Prior Art
$A_D = A_u$ Equation 2	$L_T$ parameter 2A

Table 2 illustrates the relationship between equation 2 as noted in the Applicant's specification and the prior art. Equations 2 and parameter 2A will be used later as substitution factors.

Moving to equation 3 of the Applicant remarks:

**Claimed invention:**

The attenuation of the signal between the wireless terminal and the base station,  $A_u$ , is equal to the strength at which the signal is transmitted by the wireless terminal,  $T_u$ , minus the signal strength of the signal as measured by the base station,  $R_u$ , as represented by Equation 3:

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$$A_u = T_u - R_u$$

$R_u$  = signal received by the base station.

$T_u$  = signal transmitted by the mobile terminal

$A_u$  = Attenuation or path loss.

Specifically note **the signal transmitted by the mobile station.**

### **Prior art:**

The prior art in paragraph 0051 teaches that **the signal transmitted by the mobile station**  $P_{mTX}$  is also a function of the total path loss and environmental interference I.

$$\frac{SnR_{Target}(I_{AP})}{L_T} = P_{MTx} \quad (\text{Paragraph 0051})$$

$P_{MTx}$  = signal transmitted by the mobile station (see paragraph 0053)

$L_T$  = Attenuation or path loss (see paragraph 0054)

### **Table 3**

Claimed invention	Prior Art
$A_u = T_u - R_u$ Equation 3	$\frac{SnR_{Target}(I_{AP})}{L_T} = P_{MTx} \quad (\text{Equation 3A})$ $\frac{SnR_{Target}(I_{AP})}{P_{MTx}} = L_T$

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Moving to equation 4 of the Applicant remarks:

**Claimed invention:**

Applicant indicates on page 17 of the remarks that "By substituting Equation 3 into Equation 2 and Equation 2 into Equation 1, the signal strength of the serving base station's signal at the wireless terminal, RD, can be deduced from the strength at which the signal is transmitted by the base station, TD, the strength at which the signal is transmitted by the wireless terminal, Tu, and the signal strength of the signal as measured by the base station, Ru, as represented by

$$\rightarrow \text{Equation 4: } \mathbf{R_D} = T_D - (T_u - R_u) \text{ (Eq. 4)}$$

The Examiner notes that as claimed equation 4 illustrates that a first signal received by the MS can be deduced based on a second signal transmitted by the MS.

$$\rightarrow \mathbf{R_D} \text{ can be found by using } T_u.$$

**Prior art:**

By substitution equation 3A into equation 1A we get equation 4A. Namely equation 3A is manipulated to solve for the total path loss  $L_T$ . Next we substitute the total path loss from equation 3A into equation 1A for the total path loss to arrive at the following equation.

$$\rightarrow \mathbf{P_{RX}} = P_{TX} \times \left( \frac{SnR_{Target}(I_{AP})}{P_{MTx}} \right) + I$$

The Examiner notes that as claimed equation 4A illustrates that a first signal received by the MS can be deduced based on a second signal transmitted by the MS.

**Table 4:**

Claimed invention using substitution	Prior Art Eq.4A using substitution
$R_D = T_D - (T_u - R_u)$ Eq. 4	$P_{RX} = P_{TX} \times \left( \frac{S n R_{T \text{ target}}(I_{AP})}{P_{MTx}} \right) + I$

As noted above in equation 4A contrary to the Applicant's argument that nowhere does Rotstein teach or suggest what algebraic manipulation can be used to find the strength of a signal received at a wireless terminal from the strength of a signal transmitted by the wireless terminal. The Examiner has illustrated that the prior art teaches by simple substitution of link parameters the Power received at a wireless terminal  $\rightarrow P_{RX}$  can be estimated or deduced based on the signal transmitted by the wireless terminal  $\rightarrow P_{mTX}$ .

$$P_{RX} = P_{TX} \times \left( \frac{S n R_{T \text{ target}}(I_{AP})}{P_{MTx}} \right) + I \quad \text{Equation 4A.}$$

Furthermore, the quantities are worth knowing since as illustrated by the prior art. The above noted parameters are used in link estimation. To estimate various link characteristic or parameters one of ordinary skill in the art would natural follow Link estimations noted by Rotstein.

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6. Applicant argues that because claims 2 through 4, 6, and 7 depend on claim 1, the applicants respectfully submit that the rejection of them is also traversed.
7. The Examiner respectfully disagrees for reasons noted above with respect to claim 1.
8. Applicant argues that for the reasons given above with respect to claim 1, nowhere does Rotstein teach or suggest, alone or in combination with the other references, what claim 10 recites - namely deducing a signal strength of a forward signal, RD, at a wireless terminal based on a signal- strength measurement of an reverse signal, Ru at the location where the forward signal, RD, is transmitted. For this reason, the applicants respectfully submit that the rejection of claim 10 is traversed.
9. The Examiner respectfully disagrees for reasons noted above with respect to claim 1.
10. Applicant argues that because claims 11 through 13, 15, and 16 depend on claim 10, the applicants respectfully submit that the rejection of them is also traversed.
11. The Examiner respectfully disagrees for reasons noted above with respect to claim 10 and claim 1.
12. Applicant argues that for the reasons given above with respect to claim 1, nowhere does Rotstein teach or suggest, alone or in combination with the other references, what claim 20 recites – namely deducing a signal strength of a forward signal, RD, at a wireless terminal based on an attenuation of a second signal, Au, that is transmitted by said wireless terminal. For this reason, the applicants respectfully submit that the rejection of claim 20 is traversed.
13. The Examiner respectfully disagrees for reasons noted above with respect to claim 1.

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14. Applicant argues that because claims 21 through 23, 25, and 26 depend on claim 20, the applicants respectfully submit that the rejection of them is also traversed.
15. The Examiner respectfully disagrees for reasons noted above with respect to claim 1.
16. Applicant argues that because claims 5, 14, 19, and 24 depend on claims 1, 10, and 20, respectively, and because Dupray fails to cure the deficiencies of Rotstein, the applicant respectfully submits that the rejection of claims 5, 14, 19, and 24 is traversed.
17. The Examiner respectfully disagrees for reasons noted above with respect to claim 1, 10 and 20.
18. Applicant argues that because claims 8, 17, and 27 depend on claims 1, 10, and 20, respectively, and because Okanou fails to cure the deficiencies of Rotstein, the applicant respectfully submits that the rejection of claims 8, 17, and 27 is traversed.
19. The Examiner respectfully disagrees for reasons noted above with respect to claim 1, 10 and 20.
20. Applicant argues because claims 9, 18 and 28 depend on claims 1, 10, and 20, respectively, and because Dupray and Okanou fail to cure the deficiencies of Rotstein, the applicant respectfully submits that the rejection of claims 9, 18 and 28 is traversed.
21. The Examiner respectfully disagrees for reasons noted above with respect to claim 1, 10 and 20.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

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For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Charles Shedrick/

Examiner, Art Unit 2617

Conferees:

/LESTER KINCAID/

Supervisory Patent Examiner, Art Unit 2617

/VINCENT P. HARPER/

Supervisory Patent Examiner, Art Unit 2617